

## Fall 2006 Syllabus

PH450/550-4A (PH441-UA)

Quantum Theory I

Lecture: Tuesday-Thursday 3:30-4:45pm  
Room: Campbell Hall 394 at UAB  
328 Gallalee Hall at UA

Instructors:

UA Prof A. Stern, 211 Gallalee Hall, Tele: (205)348-3043; FAX: (205)348-5051

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Office Hours: T, Th 2:00-3:30pm

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Office Hours: T, Th 2:00-3:30pm, or by appointment

UAB Prof. R. Kawai, 309 Campbell Hall, Tele: (205)934-3931, FAX: (205)934-8042

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Office Hours: to be announced

- Text: Introductory Quantum Mechanics, 4<sup>th</sup> edition, Liboff, Addison-Wesley
- Course will cover Part I; chapters 1, 3-8
- Objectives: Learn the fundamental postulates and framework for quantum mechanics and apply them to one dimensional examples.
- Prerequisites:
  - Math: courses on integral and differential calculus, and rudimentary knowledge of vectors, matrices and linear algebra.
  - Physics: courses on modern physics and classical mechanics.
- Grading Policy for Undergraduate:
  - 20% Midterm exam (after Ch 5)
  - 30 % Final exam – scheduled at UAB for Th, Dec 14, 4:15-6:45pm
  - 50% Homework problems. Approximately six sets of problems will be assigned and graded. Each student is expected to work independently on HW.
  - Term project is required for UAB graduate students and will count 8% of term grade. More information will be provided. Graduate students enrolled in PH550 are assumed to have had more exposure to introductory physics concepts and are expected to utilize this in answering homework and exam questions. This expectation is reflected in the assignment of partial credit on exams and homework. When comparing scores on exams and homework with undergraduates enrolled in PH450, student should keep this difference in mind.
- Miscellaneous:
  - Attendance is strongly encouraged.